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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CORMIER, DAVID G

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,117	Applicant(s) LEE, GANG HYUN	
	Examiner DAVID CORMIER	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,10,12-16 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,10,12-16 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments/Amendments

1. This Office action is responsive to the amendment filed June 29, 2009. Claims 1-7, 9, 10, 12-16 and 21-23 are pending. Claims 1, 2, 9, 10 and 15 have been amended. Claims 8, 11 and 17-20 have been canceled, and Claims 21-23 are new.
2. The rejection of Claims 2, 15 and 18 under 35 U.S.C. 112, second paragraph, made of record in the Office action mailed April 16, 2009, has been withdrawn in response to Applicant's arguments and amendments.
3. The rejection of Claims 1-20 as being anticipated under 35 U.S.C 102(b) over Enokizono (US 5,337,500), made of record in the Office action mailed April 16, 2009, has been withdrawn in response to Applicant's amendments; however, in response to the amendments, new grounds of rejection are presented herein.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 3-4, 9, 10, 12 and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 6-9, 14-16 and 19 of copending Application No. 10/580115. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed structures are substantially identical.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 23 recites the limitation "the other curved portion" in line 3. There is insufficient antecedent basis for this limitation in the claim.

9. Further regarding Claim 23, the phrase "wherein the air duct includes...inclined at a predetermined angle" is indefinite because it is unclear what exact structure is

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being claimed. For purposes of examination, the phrase will be interpreted to mean that a straight portion connects a first and second curved portion, the first curved portion being at the water discharge port and the second curved portion being at the vapor exhaust port.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-7, 10, 12-16 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enokizono (US 5,337,500) in view of Kim (US 5,277,210).

12. Regarding Claims 1-7, 10, 12-16, 21 and 22, Enokizono teaches a dishwasher having a washing chamber 14 for holding utensils which are washed and dried therein. The drying functions are performed using at least the following parts: a circulation duct 56 (air duct); heat exchanger 68 (condensing apparatus), condensate container 32 (condensed water discharge port), outside air duct 82 (vapor exhaust port), a first fan 72 (condenser fan), a second fan 86 (dryer fan), and a motor 74 which drives both the first fan and second fan together (motor).

13. The prior art, Enokizono illustrates a right-hand side of the duct (outside air duct 82) which reads on Applicant's claims for an "air duct", the left-side of the duct (rear duct 80) reads on "an outside of the air duct", therefore the first fan 72 (condenser fan) blows

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air along an outside of the air duct 82. Moreover, the fans 72, 86 of Enokizono read on Applicant's claims for cross-flow fans since they suction air and discharge air in a radial direction. Further Enokizono discloses ridges protruding a predetermined height from a floor thereof (the wavy interface of the heat exchanger 68).

14. Finally it is noted that although the second fan 86 (dryer fan) is formed in the path of the air outlet, it fully is capable of functioning as Applicant's dryer fan for "providing suctioning force to suction vapor from inside the tub", since the second fan 86 is fully connected to the dishwashing chamber 14 and since it is driven to help the flow of air in an outwardly direction, the air inside the chamber is thus forced/suctioned outwards by fan 86. It is well settled that the intended use of a claimed apparatus is not germane to the issue of the patentability of the claimed structure. If the prior art structure is capable of performing the claimed use then it meets the claim. In re Casey, 152 USPQ 235, 238 (CCPA 1967); In re Otto, 136 USPA 459 (CPA 1963). Although fan 86 is not formed at the immediate outlet of chamber 14, it is still fully capable of forming a vacuum/suction effect by delivering air out of the chamber from the exiting part of the circulation duct 56 since fan 86 drives air out of the dishwasher.

15. Enokizono does not expressly disclose the air duct having a vapor exhaust port spaced apart from the condensed water discharge port for exhausting vapor, from which the moisture has been removed, outside of the dishwasher.

16. Kim discloses a dishwasher which dries by using a fan 210 to blow ambient air into the tub while heating with a heater. Hot humid air is exhausted through air discharge outlet 204 into a condensing duct 100. The relatively dry air is discharged

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from the condensing duct through dry air discharge outlet 106, and the condensation is returned to the tub through condensed water tube 207. See col. 3, lines 49-67 and col. 4, lines 26-56.

17. Because it is known in the art to dry dishes using a recirculating duct, as taught by Enokizono, or a non-recirculating duct having a vapor exhaust port 106 and a condensed water tube 207, as taught by Kim, and the results of the modification would be predictable, namely, an effective means of drying dishes and reducing humidity, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the dishwasher of Enokizono so that it does not recirculate drying air, but instead is configured so that duct 60 sucks in ambient air at the duct entrance and exhausts dry air through a vapor exhaust port provided near the duct outlet where the condensed vapor is returned to the container 32.

18. Regarding Claim 23, Enokizono in view of Kim is relied upon as above. Enokizono discloses that the duct 60 has a straight up and down portion between the fan 72 and a curved portion of the condensed water discharge port (shown at part 64). The straight portion can be construed as being inclined at a predetermined angle because no orientation has been claimed.

19. Enokizono in view of Kim does not expressly disclose a second curved portion for a vapor exhaust port.

20. However, this simply reads on using an elbow shaped pipe connector, which is well-known, or any curved duct (for example, see the curved drain pipe 46 as shown in

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Enokizono), for connecting the duct to an exhaust port outside of the casing, and thus would have been obvious to one of ordinary skill in the art at the time of the invention.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CORMIER whose telephone number is (571) 270-7386. The examiner can normally be reached on Monday - Thursday 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art
Unit 1792

/DGC/
David Cormier
11/04/2009